

In The Claims

1. (Amended) At least one of the following peptides or their effective parts with hormonal or hormone-like function and/or cytokine-like function selected from the group consisting of

- (1₁) KPKAA KPKAA KPKAA KPKKA APKKK (SEQ. ID NO. 1),
- (1₂) KPKAA KARUVT KPKTA KPKKA APKKK (SEQ. ID NO. 4),
- (1₃) AAKAV KPKAA KPKVV KPKKA APKKK (SEQ. ID NO. 5),
- (1₄) KPKAA KPKSG KPKVT KAKKA APKKK (SEQ. ID NO. 6),
- (1₅) KPKAA KPKTA KPKAA KPKAA AAKKK (SEQ. ID NO. 7),
- (1₆) KPKAA KPKAA KPKAA KAKKA AAKKK (SEQ. ID NO. 8),
- (1₇) KPKAA KPKAA KPKAA KP KAKKA AAKKA (SEQ. ID NO. 9),
- (2) PEPAK SAPAP KKGSK KAVTK AQKKD GKRRK RSEKE, (SEQ. ID NO. 2) and,
- (3) SYSVY VYKVL KQVHP DTGIS SKAMG IMNSF VNDIF ERIAGE (SEQ. ID NO. 3);

is used in the diagnosis and/or therapy of autoimmun diseases, in particular diseases of the rheumatic group as systemic lupus erythematosus, rheumatoid arthritis or systemic sclerosis.

2. (Original) Effective part of a peptide (11 to 17) according to claim 1 containing at least eight amino acids and/or including at least one consensus sequence depicted as boxes of five amino acids whereby the C terminal is always A x K K K (x=A or P).

3. (Previously Withdrawn) A method for improving diagnosis of autoimmun diseases, in particular diseases of the rheumatic group a systemic lupus erythematosus (SLE), rheumatoid arthritis or systemic sclerosis comprising a first step, wherein a first peptide or their effective part according to claim 1 is used as a first antigen and a tissue sample taken from the body of a patient is brought into contact with said first antigen and specific binding of an antibody comprised in said tissue sample to said first peptide is detected to receive an antibody

specifically bound to an antigen, and at least a second step, wherein a second peptide or their effective part according to claim 1 is used as a second antigen and is brought into contact with said tissue sample and specific binding of an antibody comprised in said tissue sample to said second peptide is detected by said method for the detection of an antibody specifically bound to an antigen.

4. (Previously Withdrawn) A method according to claim 3 comprising an intermediate step between said first step and said second step, wherein said antibody, which in said first step has specifically bound to said first peptide, is eluted from said first peptide or its affective part for eluting of a bound antibody, and said eluted antibody is used in said second step.

5. (Previously Withdrawn) A method according to claim 3 or 4, wherein said tissue sample is a serum sample, a blood sample, a sputum sample, a liquor sample, a urine sample or a tear sample.

6. (Previously Withdrawn) A method according to claim 3 or 4 using a peptide or its effective part according to claim 1 selected from the group (1₁) to (1₇) as said first peptide and using the peptide or its effective part according to claim 1 mentioned with (2) as said second peptide.

7. (Previously Withdrawn) A method according to claim 3 or 4 using the peptide or its effective part according to claim 1 mentioned with (2) as said first peptide and using the peptide or its effective part according to claim 1 selected from the group (1₁) to (1₇) as said second peptide.

8. (Previously Withdrawn) A method for therapy of autoimmun diseases, in particular systemic lupus erythematosus (SLE), rheumatoid arthritis or systemic sclerosis, comprising administering to a patient a pharmaceutical composition comprising a therapeutically active amount of at least two peptides or their effective parts according to claim 1.

9. (Previously Withdrawn) A method according to claim 8, wherein said pharmaceutical composition is an injectable solution and is administered by an injection.

10. (Previously Withdrawn) A method for the production of the antiidiotypic antibody, which specifically binds to the antigen-binding site of a monoclonal antibody, said monoclonal antibody specifically binding both a peptide or its effective part having an amino acid sequence selected from the group consisting of (1₁) to (1₇) of claim 1 and to a peptide or its effective part (2), comprising at least one step of a selection for a hybridoma clone, wherein said monoclonal antibody is used as an antigen.

11. (Previously Withdrawn) A method for improving the diagnosis of an autoimmun disease, in particular diseases of the rheumatic group as systemic lupus erythematosus (SLE), rheumatoid arthritis or systemic sclerosis, comprising a step, wherein a tissue sample taken from the body of a patient is brought into contact with an antiidiotypic antibody according to claim 9 and specific binding of an antibody comprised in said tissue sample to said antiidiotypic antibody is detected to receive an antiidiotypic antibody which has specifically bound to an antibody.

12. (Previously Withdrawn) A method according to claim 11, wherein said tissue sample is a

serum sample, a blood sample, a sputum sample, a liquor sample, a urine sample or a tear sample.

13. (Previously Withdrawn) A method for therapy of autoimmun diseases, in particular diseases of the rheumatic group as systemic lupus erythematosus (SLE), rheumatoid arthritis or systemic sclerosis comprising administering to a patient a pharmaceutical composition comprising a therapeutically active amount of an antiidiotypic antibody according to claim 9.

14. (Previously Withdrawn) A method according to claim 13, wherein said pharmaceutical composition is an injectable solution and is administered by an injection.